

Expansion of EPA's Testing Area Community Indoor Air Update

Progress on mitigating homes and schools affected by vapor intrusion and step-out sampling to new homes on Coachella, San Pablo & San Patricio Avenues

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Philips, AMD 901-902 Thompson Place, TRW Microwave Superfund Sites ("Triple Site"), Sunnyvale, California

The U.S. Environmental Protection Agency (EPA) continues to request permission from certain residents in the Duane/San Miguel neighborhood to collect indoor air samples. EPA is also expanding the sampling area to include more residences based on newly collected data. This sampling is part of a study of the potential for vapor intrusion (a process where vapors from groundwater contamination may migrate into indoor air). In 2015 and 2016, EPA sampled 130 homes and 34 buildings at all four neighborhood schools. Six of the 34 school buildings and 20 of the 130 residences tested (households on Duane Avenue, Carmel Avenue, San Luisito Way and San Miguel Avenue) showed some evidence of potential vapor intrusion, primarily in crawlspaces. EPA is evaluating sampling results and overseeing the design and installation of mitigation systems to prevent vapors from accumulating indoors. **Based on these findings, EPA continues to recommend testing in all homes in the area that have not yet been sampled.** There is no cost to owners or tenants selected for this testing. To sign up for the sampling, please contact Melanie Morash, the EPA Project Manager, at (415) 972-3050 or by e-mail to morash.melanie@epa.gov.

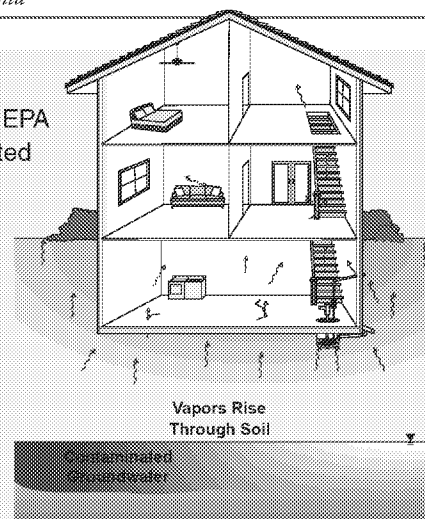
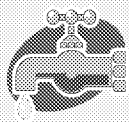


Figure 1: Vapor intrusion into a residence.

TCE and Vapor Intrusion

The main chemical of concern in this investigation is trichloroethene (TCE). TCE is a type of volatile organic chemical (VOC) which can move as vapors from groundwater through soil under certain conditions. If vapors move under a building it is possible for them to pass through cracks and other openings in the foundation and enter the indoor air (see Figure 1). If this happens, and if the levels of VOCs are high enough and prolonged enough, it may create a health risk.

TCE is present in the groundwater due to historical semiconductor and other electronics manufacturing operations from the early years of Silicon Valley (dating back to the 1960s). Since the 1980s, the parties responsible for the environmental cleanup have been conducting activities to contain and clean up TCE in the shallow groundwater.



Note: Your drinking water does not come from groundwater in this area. Neighborhood drinking water comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and meets all state and federal drinking water standards.

Sampling Results

During the past year of indoor air sampling, 130 households (out of over 400 total) and 34 school buildings – Rainbow Montessori, San Miguel Elementary, The King's Academy

and Children's Creative Learning Center (CCLC) were sampled. Many households and classrooms showed no evidence of vapor intrusion, having levels similar to outdoor air (which has low concentrations of TCE typical of the South Bay area).

As expected, the majority of locations sampled at the four schools showed low concentrations of TCE which do not pose a health risk and fully meet EPA's requirements for protecting children's and teachers' health. None of the CCLC samples showed any evidence of vapor intrusion. However, TCE was detected in the crawlspaces underneath certain other school buildings and in some classroom locations. Most of these classroom locations showed TCE when EPA sampled under "ventilation-off" conditions.

Additionally, 20 of 130 residences showed some indication of vapor intrusion in crawlspaces above EPA's acceptable level. Similar to the results of the school sampling, indoor air levels in most residences met EPA's health-protective requirements. Out of precaution, mitigation systems are being designed for these residences and six school buildings. Additional testing is ongoing at the other school buildings to determine if mitigation systems or longer-term monitoring would be appropriate to further reduce risk.

In the meantime, sampling continues and residents can call anytime to sign up for testing. EPA recommends a minimum of two rounds of testing at all households, including at least one round of winter testing.

Why is the Testing Area Expanding?

Based on newly collected data showing homes affected by vapor intrusion on the easternmost boundary of the testing area (San Miguel Avenue), EPA has also expanded the sampling area. This “step-out” sampling area includes certain homes on Coachella, San Pablo and San Patricio Avenues (see Figure 2).

The “Triple Site”

Informally known by the collective term “Triple Site”, the site includes three groundwater TCE sites – the Advanced Micro Devices 901/902 Thompson Place Superfund Site (AMD 901/902 Site), the Philips (formerly Signetics) Site (Philips Site), and the TRW Microwave Superfund Site (TRW Site).

The Triple Site also includes the area of the neighborhood (see map), which has been impacted by TCE-containing groundwater — elevated above the acceptable level of 5 micrograms per liter (ug/L).

What Happens Next?

Due to the potential for unacceptable vapor intrusion occurring on Duane Avenue, Carmel Avenue, San Luisito Way and San Miguel Avenue, EPA recommends testing within the sampling area shown, including the adjacent step-out area. Residents can call or e-mail anytime to sign up.

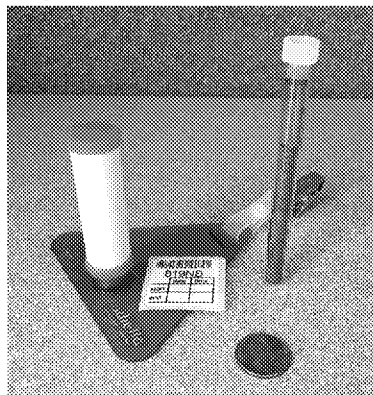


Figure 3: Home Indoor Air Sampler

When signing up for the sampling, please call (or e-mail) and leave a message with your name, telephone number, mailing address and/or e-mail address and the best time to reach you.

With residents' permission, two rounds of sampling will be conducted, including at least one round during the winter heating season. The process for testing TCE in indoor air is not disruptive, and simply involves placing a small sampling device in the home (for example, on a shelf or counter) and in the crawlspace beneath the home over a 24-hour to 2-week period.

During the testing, residents should avoid using chemicals which can interfere with the testing (such as on dry-cleaned clothing, paints, or carpet cleaners). EPA will notify each resident individually of the results within a few weeks after the testing. If a site-related vapor intrusion issue is found, there will be no cost to residents or property owners to put in place a solution. EPA will distribute another fact sheet in late 2016 and hold another community meeting to provide an update on the investigation and discuss next steps for the community.

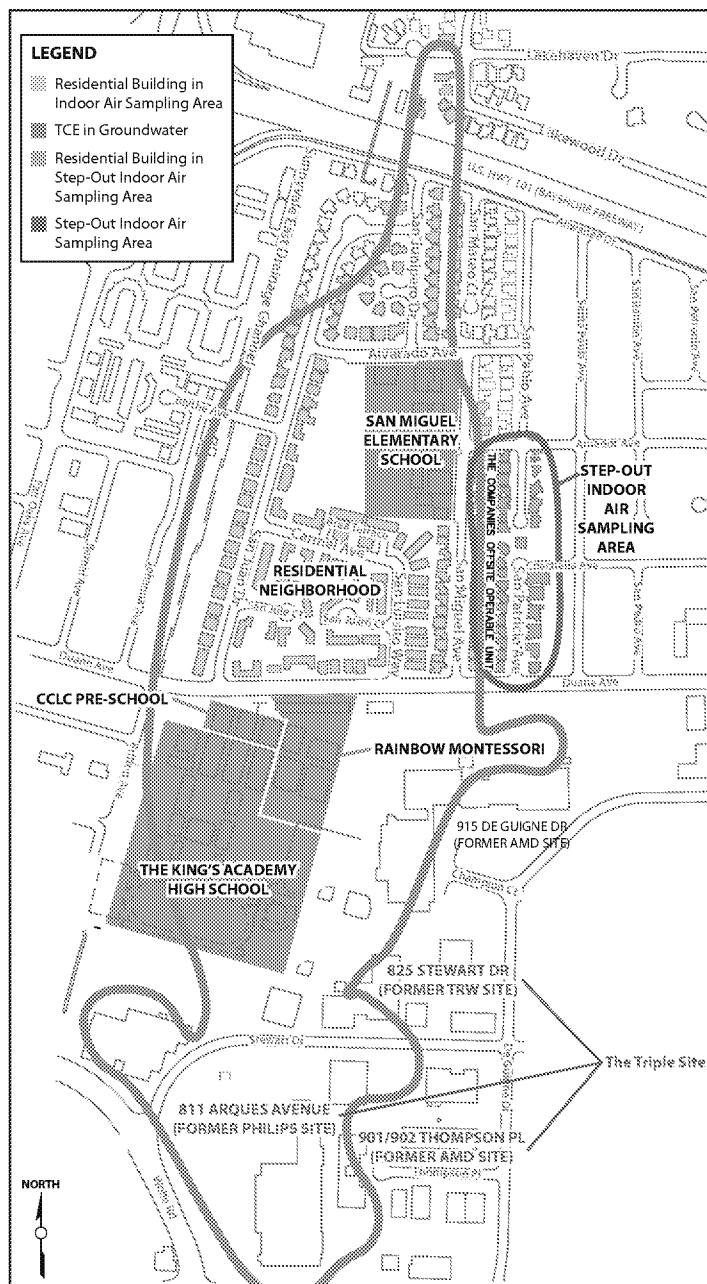


Figure 2: Original indoor air sampling area and step-out indoor air sampling area. Approximate extent of TCE contamination above 5 micrograms per liter (ug/L) in shallow groundwater (around 10 feet).

Who Do I Contact If I Would Like My Home Sampled?

Please contact any of the following if you would like your home sampled:

Melanie Morash
EPA Project Manager
(415) 972-3050
morash.melanie@epa.gov

Alejandro Diaz
(Fluent in Spanish)
EPA Community
Involvement Coordinator
(415) 972-3242
diaz.alejandra@epa.gov